

What happens when VHSV appears in your neighborhood – VHSV in Michigan Case History



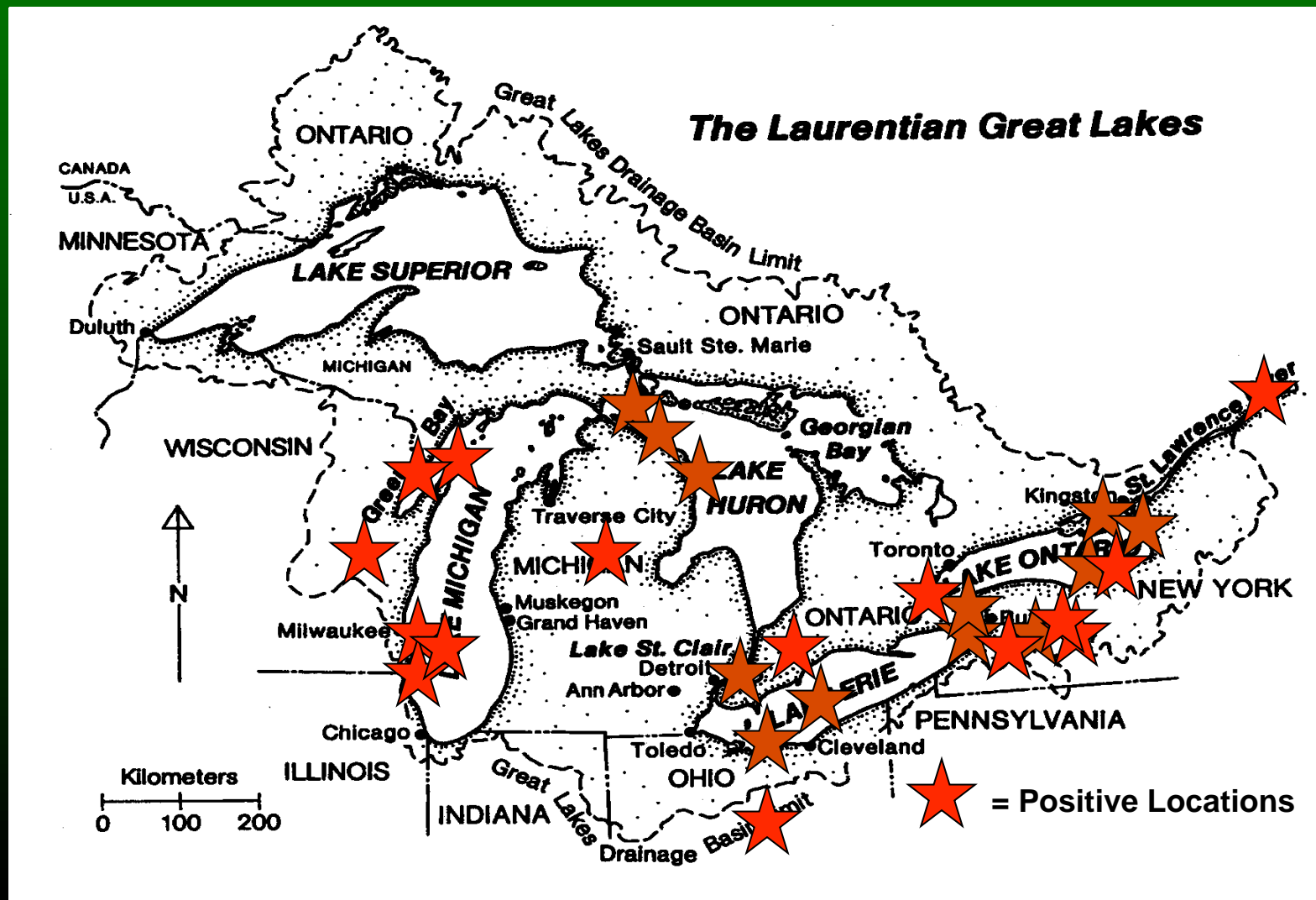
Gary Whelan
MI DNR Fisheries Division
August 2009

VHSv Type IVb Action Chronology

- 2005 - Uncertainty
 - First Ontario drum mortality reports and VHSv confirmation
 - Request for GLFHC assistance and consultation
- 2006 - Action
 - Confirmed in Michigan waters 2005
 - Mass mortalities in lakes St. Clair, Erie and Ontario
 - August 2006 – GLFHC develops 39 recommendations
 - October 2006 – CLC approves and agencies begin implementation
- 2007 through 2009 - Implementation
 - Recommendations implemented by all jurisdictions
 - Extensive surveillance
 - Few new detections and outbreaks
 - Limited range extension



Great Lakes Distribution of VHS- It is not everywhere



Great Lake VHS Affected Species - 25

- Large mortalities (7)
 - Gizzard shad, round gobies
 - Black crappie, bluegills, yellow perch
 - Freshwater drum
 - Muskies – Highly Sensitive
- Small mortalities (8)
 - Carp
 - Pumpkinseed sunfish, rock bass
 - Largemouth and smallmouth bass, lake whitefish, brown trout, rainbow trout (steelhead)
- Detected (10)
 - Emerald and spottail shiners, white suckers?, silver and shorthead redhorse
 - Walleye, lake trout, burbot, Chinook salmon, channel catfish





Control Strategy

- Strategy is to contain and slow the spread of most pathogens such as VHS
 - Provide time
 - Protect key broodstocks and inland waters
 - Slow spread to naïve fish populations
 - Develop needed research and decision support information
 - Transmission and susceptibility studies
 - Biosecurity tools



Required VHS Control Actions

- Pathogen and Disinfection Testing
- Surveillance
- Fish Culture
- Fish Transfers
- Other Management Actions
- Commercial Fishing
- Bait Industry
- Public Information
- Other Measures





VHSv Actions

- Pathogen and Disinfection Testing
 - Coolwater fish egg disinfection
 - Need rapid testing
- Fish Culture and Fish Farms
 - Biosecurity and isolation
 - Greatly increased testing
- Surveillance - >15,000 fish
 - USDA-APHIS Grant
- Reduced management options
 - Restrictions on fish stocking tool





2009 MI DNR Coolwater Production

- Greatly reduced management options
 - Northern pike rearing in abeyance
- Reduced program for walleye (about 20% of normal)
 - Greatly increased testing
 - Adults - Pre-spawning and Egg Take
 - Fry and Fingerlings
 - Restricted walleye broodstocks and rearing locations
 - Only use non-drainable ponds or those with direct drainage to Great Lakes





2009 MI DNR Coolwater Production



- Restricted muskie rearing options from inland broodstock sources
 - Reduced options for rehabilitation for GL muskies
- Restricted walleye stocking – Slow decline
 - Back into same Great Lakes waters or connected waters
 - Lake Michigan or Huron drainage lakes without outlets
- Managed risk program is now required



VHS Actions

- Fish Transfers
 - Prohibition without testing
- Other Management Actions
 - Operation of fishways
 - Large research vessels
 - Not between disease management areas
 - Dry large gear and ballast tank disinfection
 - Disinfection of all gear
 - Increased costs and reduced management options





VHS Actions Update

- Other Management Actions
 - Angler Regulations
 - Drain all live wells and bilges
 - Bait restrictions
 - Regulated bait species
 - Certification and Tracking Process
 - Increasing testing
 - Use restrictions
 - Increased cost for baitfish industry





VHS Actions Update

- Commercial Fishing
 - Live fish movement restrictions
- Public Information
 - Best management practices
 - USDA-APHIS Funds
- Other Measures
 - Ballast water treatment
 - Research needs





Needed VHS Research and information

- Effective ballast water treatment strategies
- Effective egg disinfection for coolwater fish
- Early warning system needed
- Vector and relative risk analysis needed
- Improved detection tools in fish
- Species susceptibility information
- Reference laboratories
- Improved VHS education and outreach materials
- Current Funding - USGS and USFWS Op Funds
 - \$1.13 M NCRAC, CSREES, and GLFT

Questions? Comments?



Great Lakes, Great Times, Great Outdoors

www.michigan.gov/dnrfishing

whelang@michigan.gov